

WHAT IS CLAIMED IS:

- 1 1. A system for permitting interaction with media data analysis and media representation generation, the system comprising:
 - 3 a user interface for permitting a user to control the media content analysis and media representation generation; and
 - 5 a media analysis software module for analyzing features of the media content, the media analysis software module being communicatively coupled to the user interface to receive media content analysis instructions.
- 1 2. The system of claim 1, the media analysis software module further comprises content recognition software for recognizing features in media content.
- 1 3. The system of claim 1, further comprising processing logic for controlling the display of a user interface.
- 1 4. The system of claim 1, further comprising processing logic for controlling the generation of a media representation.
- 1 5. The system of claim 1, further comprising hardware for writing a media representation in digital format.
- 1 6. The system of claim 5, further comprising a storage medium for storing media representations written in digital format.

1 7. The system of claim 1, wherein the media representation is generated in paper
2 format.

1 8. The system of claim 7, wherein the paper format includes at least one user-
2 selectable identifier allowing a user to access and control media content.

1 9. The system of claim 8, wherein the at least one user-selectable identifier
2 comprises at least one barcode printed on the media representation.

1 10. The system of claim 8, wherein the at least one user-selectable identifier
2 further comprises at least one play identifier that can be selected to play an associated
3 media content.

1 11. The system of claim 1, further comprising a data structure for representing
2 transformation of media content.

1 12. The system of claim 1, further comprising a communication monitoring
2 module for monitoring communication between the components of the system, wherein
3 the communication monitoring module forwards requests for information and replies to
4 requests among system components.

1 13. The system of claim 1, wherein the user interface further comprises a
2 selection menu for allowing a user to select feature analysis to be performed on media
3 content.

1 14. The system of claim 1, wherein the user interface further comprises a field for
2 setting a threshold on confidence values associated with results of the media content
3 analysis.

1 15. The system of claim 1, wherein the user interface further comprises at least
2 one field for managing and modifying display of media information on a media
3 representation.

1 16. The system of claim 1, wherein the user interface further comprises a preview
2 field for previewing active media frames within selected media content.

1 17. The system of claim 1, wherein the user interface further comprises a preview
2 field for previewing the media representation being generated.

1 18. The system of claim 1, wherein the user interface further comprises at least
2 one content selection field for selecting segments of media content from at least one
3 source to be displayed in a media representation.

1 19. The system of claim 18, wherein the content selection field further comprises
2 a selector that a user can slide along the content selection field in order to select segments
3 to be displayed in a media representation.

1 20. The system of claim 18, wherein the content selection field further comprises
2 a graphical illustration of media content from which a user can view media content and
3 select segments of media content.

1 21. The system of claim 20, wherein the graphical illustration of media content
2 further comprises an audio waveform timeline displaying audio content.

1 22. The system of claim 20, wherein the graphical illustration of media content
2 further comprises a video timeline displaying video frames extracted from video content.

1 23. The system of claim 20, wherein the graphical illustration of media content
2 further comprises a video timeline displaying text extracted from video content.

1 24. The system of claim 18, wherein the content selection field further comprises
2 a field for displaying the results of media content analysis, the results being displayed as
3 defined segments along a timeline.

1 25. The system of claim 1, further comprising an output device driver module for
2 driving the media content analysis and the media representation generation, the output

3 device driver module being communicatively coupled to the user interface to receive user
4 instructions.

1 26. The system of claim 25, further comprising an augmented output device for
2 generating a media representation, the augmented output device being communicatively
3 coupled to the media analysis software module to receive transformed media data, the
4 augmented output device being communicatively coupled to the output device driver
5 module to receive instructions for media representation generation.

1 27. A method for permitting interaction with media data analysis and media
2 representation generation, the method comprising:
3 interacting with an interface to control the media data analysis and media
4 representation generation;
5 analyzing features of media data for media representation generation;
6 driving the media data analysis; and
7 driving the media representation generation, by receiving instructions and sending
8 instructions regarding media representation parameters.

1 28. The method of claim 27, further comprising generating a media
2 representation.

1 29. The method of claim 27, wherein analyzing features of media data further
2 comprises performing speech recognition on the media data.

1 30. The method of claim 27, wherein analyzing features of media data further
2 comprises performing optical character recognition on the media data.

1 31. The method of claim 27, wherein analyzing features of media data further
2 comprises performing face recognition on the media data.

1 32. The method of claim 27, wherein analyzing features of media data further
2 comprises performing speech recognition on the media data.

1 33. The method of claim 27, wherein analyzing features of media data further
2 comprises performing speaker detection on the media data.

1 34. The method of claim 27, wherein analyzing features of media data further
2 comprises performing face detection on the media data.

1 35. The method of claim 27, wherein analyzing features of media data further
2 comprises performing event detection on the media data.

1 36. The method of claim 27, further comprising adding a print function to a
2 media rendering application for printing a media representation.

1 37. The method of claim 27, storing media content on a storage medium that is
2 accessible to augmented output device.

1 38. The method of claim 27, wherein interacting with an interface to control the
2 media data analysis and the media representation generation further comprises using a
3 user interface to display media content formatting options to a user.

1 39. The method of claim 27, wherein interacting with an interface to control the
2 media content analysis and the media representation generation further comprises
3 selecting an analysis technique to be applied to media content, wherein the analysis
4 technique recognizes defined features in the media content.

1 40. The method of claim 27, wherein interacting with an interface to control the
2 media data analysis and the media representation generation further comprises selecting a
3 threshold value to be applied to confidence levels associated with defined features that
4 are recognized in the media content.

1 41. The method of claim 27, wherein interacting with an interface to control the
2 media data analysis and the media representation generation further comprises
3 previewing the media representation being generated in a preview field that displays the
4 media representation as it is being created.

1 42. The method of claim 27, wherein interacting with an interface to control the
2 media data analysis and the media representation generation further comprises selecting
3 an update field after modifying content on a user interface to update the preview field.

1 43. The method of claim 27, wherein interacting with an interface to control the
2 media data analysis and the media representation generation further comprises selecting
3 segments of media content in a field of the user interface by sliding a selector along a
4 timeline displaying media content

1 44. The method of claim 27, wherein interacting with an interface to control the
2 media data analysis and the media representation generation further comprises selecting a
3 play option on the user interface to play media content.

1 45. The method of claim 27, further comprising selecting a print option on a
2 media rendering application, wherein the user interface appears and the user selects
3 parameters for transformation of media content.

1 46. The method of claim 27, further comprising selecting a print option on media
2 rendering application, wherein the user interface appears in which default media content
3 transformation has been performed and the media representation is shown in a preview
4 field of the user interface.

1 47. The method of claim 27, wherein generating a printable multimedia
2 representation further comprises printing a media representation in a paper-based format.

1 48. The method of claim 47, further comprising selecting a user-selectable
2 identifier on the paper-based format to play the associated media content.